'Chemical soup' in the classroom

Air pollution is causing health problems ranging from headaches to rashes to brief loss of memory

Tracey Tyler Toronto Star

Ashley George is 6 years old, but she lerstands as well as a scientist what luted classroom air can do. The Mis-auga girl has phoned her mother m school, crying about headaches begging to come home.

ion and Debby Morton vow to keep ir son, Ryan, 7, out of his Etobicoke olic school until air pollution is clean-up. The boy became "hyper" and his rks dropped as the school's carbon xide count rose and mould levels ped to 12 times the limit considered rable.

truce and Barbara Small, worried ut classroom pollution, took their ghter Carolyn, now 12, out of kind-arten in Uxbridge and began tutor-her at home. The child suffered fre-nt headaches when she started de 7 at a regular school last fall, so went back to home tutoring last k.

lassroom pollution hits children with ere allergies hardest, although some utants — such as carbon dioxide — affect all students, experts say.

Parents worry

The classroom represents a chemi-soup," says Greg Finlayson, chair-n of the Ontario Interagency Work-Group on Pollution in Education. It s set up by five school boards and the unto health department.

n Metro, York Region and Peel Re-n, soaring levels of carbon dioxide, uld and other pollutants in school worrying parents. They fear their ldren's learning abilities are being aired.

headaches, dizziness, rashes, exhaus-n, nosebleeds, short-term memory , coughs and vision problems are wing up in Metro-area children. or ventilation in portable classrooms t older schools is being blamed.

n all schools, cleaning solvents, ar-plies and even chalk are on the hit for children who are asthmatic or e allergies. In North York, some stu-ts with severe allergies are bringing table medical inhalers to schools, lic board officials say.

At Sts. Martha and Mary separate ool in Mississauga, the Ontario Re-rch Foundation last week found car-n dioxide counts of up to three times e normal level linked with flu-like ptoms.

Dufferin-Peel Roman Catholic Sepa-e School Board officials say they y upgrade ventilation in the problem tables.

And the Etobicoke Board of Educa-n plans a $1.2 million overhaul of the system at Humber Valley Village public school, where excess carbon dioxide and mould have been tainting nine classrooms.

Experts say the problem doesn't stop there.

School children across Ontario have chronic health problems caused by classroom air pollution, the interagency working group says, but education ministry officials are doing little about it.

At a Kitchener high school, the Waterloo County Board of Education has taken the unusual step of opening a pollution-free classroom for students with severe reactions to chemicals and synthetics. Constructed of non-toxic materials with a sealed cement floor, the two-year-old experimental classroom is the only one of its kind in North America.

Parents are questioning the need for such drastic measures.

Instead, parent groups in Metro, York and Peel regions are urging the province to set clean-air guidelines for schools and begin regular air-testing programs this year.

They want the province to review the use of 6,500 portable classrooms, cited by parents in York and Peel as a leading source of pollution caused by poor ventilation and chemical fumes from carpets and prefabricated construction materials.

Teachers and other workers are protected from unsafe job sites by the Occupational Health and Safety Act, Finlayson says. Adults can leave a job that jeopardizes their health, he argues, but "schoolchildren don't have that option."

At least one Metro teacher says she was forced to resign four years ago because of contaminated school air.

"I cried for three months afterwards," Darlene Koski says. "I loved my job."

Ontario's Environmental Protection Act has no air-quality guidelines, says Kathy Cooper, a lawyer with the Canadian Environmental Law Association. Labor ministry air standards for industrial workplaces are "completely out of line" because children are acutely sensitive, she adds.

Children stuck

"A child really doesn't have a recourse," says environmental consultant Bruce Small. "Children are literally under the control of school and their parents."

Small conducted a major study of school pollution for the Toronto Board of Education three years ago. He found 97 sources of health-threatening pollution in 27 Toronto schools. These included carbon dioxide, carpet glue, fumes from art supplies, felt pens, cockroach and termite sprays, brush cleaner, floor polish, particle board shelving, neighborhood industrial pollution, photocopy paper and the fumes from school buses.

Small and his wife took daughter Carolyn out of kindergarten at Goodwood public school in Uxbridge.

"We noticed she was a lot more subdued and spaced out at school than at home, as a result of toxins and perfume odors in her classroom," says Small, who taught his daughter at home under a tutoring program approved by the Durham Board of Education.

Carolyn began getting headaches when she tried to join friends in Grade 7 at Joseph Gould senior public school two months ago. She has returned to home schooling, which Small says could stretch out until she finishes Grade 13.

More portables

Ruth Ganby of the Human Ecology Foundation in Hamilton says concern over classroom pollution is prompting a growing number of parents in Metro and across Ontario to pull their children from mainstream schools and start home tutoring.

Small was able to teach his daughter because he and his wife work out of their home. He says that option is beyond the reach of many parents, who would have to pay for tutors or give up at least one job.

Small's report of his study listed 10 recommendations. These included setting up pollution-free classrooms and adopting air-quality guidelines.

The government has barely budged, he says.

The education ministry is reviewing the issue, but has no plans to set clean-air guidelines for schools, assistant deputy minister Dina Palozzi says.

Meanwhile, John Rankin, the ministry's chief architect, says an additional 800 portable classrooms will be added to the stock by this September to cope with an education system that is bursting at the seams.

Devised 30 years ago as temporary classrooms, the $27,000 portables are no longer viewed by the ministry as a cost-saving measure, Rankin says.

The prefabricated units — sometimes joined in groups called portapacs — must meet the same building code standards as brick-and-mortar schools, so they are considered safe, Rankin says.

That doesn't reassure Mississauga parents whose children have spent their entire school careers in portapacs because of ministry cutbacks in school construction.

One mother, Gerry Simpson, says her son Ian has become drowsy at his school because of high carbon dioxide levels in his portable classroom at Sts. Martha and Mary school, where levels hit 7 parts per million by 2 p.m. The recommended limit is 800 parts per million.

The Dufferin-Peel separate board, one of the fastest-growing in North America, plans to bring in more portables to accommodate nearly 8,000 students this year, but parents want building materials and classroom ventilation reviewed by Education Minister Chris Ward by September.

Long-term effects

Long-term health effects on students remain uncertain, says Simpson, who is calling for clean-air guidelines.

What more can schools do?

The York Region Roman Catholic Separate School Board is designing "ecological classrooms" free of common contaminants to provide relief for severe allergy and asthma sufferers.

To be located at St. Robert's Catholic high school in Thornhill and at the St. Elizabeth Catholic high school in Vaughan, the classrooms will follow the Kitchener experiment by forgoing carpets, which can give off synthetic gases, and using hypo-allergenic curtains, floor glues, window sealants and paints, says John Capelletti, communications officer for the board.

A $14,000 exhaust system that places "dead air" with fresh air has substantially reduced carbon dioxide levels at St. Ann school in Richmond Hill, levels are still twice the recommended limit.

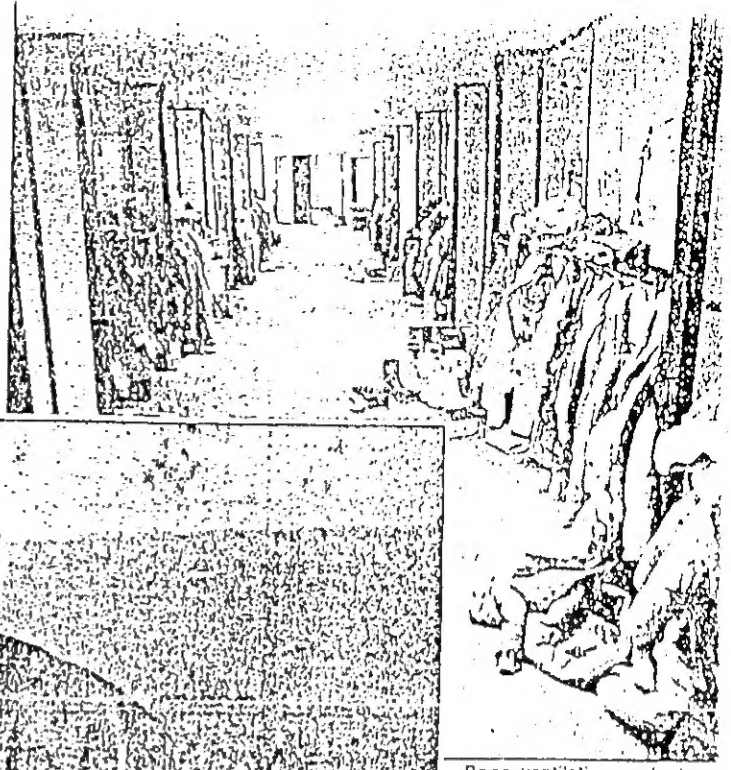
Meanwhile, the York Region Board of Education is considering putting a pollution-free classroom in two of the new schools expected to be approved by the province in April, spokesman Ian Evans says.

The North York Board of Education is also studying the idea.

Koski, an elementary school teacher, gave up after 27 years because of a reaction to paints and common classroom substances in her Toronto school. She says her face swelled and she lost her voice before she experienced more severe reactions.

"If someone could give me a classroom where I knew I would be safe, I'd be back in school tomorrow," says Koski, who asked that the name of her school and the substances not be named because of an upcoming Workers' Compensation Board hearing.

She now advises groups on environmental health for the Human Ecology Foundation.



Poor ventilation and chemical fumes in portable classrooms are blamed for air pollution.

High carbon dioxide levels in his portable classroom have affected Ian Simpson, 10, who still studies there.

Bruce and Barbara Small had to take daughter Carolyn out of kindergarten and tutor her at home. After suffering headaches in Grade 7 at a regular school, she's now studying at home again.

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